

Title (en)
OSCILLATING WAVEGUIDES AND RELATED SENSOR ASSEMBLIES

Title (de)
OSZILLIERENDE WELLENLEITER UND VERWANDTE SENSORANORDNUNGEN

Title (fr)
GUIDES D'ONDES OSCILLANTS ET ENSEMBLES CAPTEURS ASSOCIÉS

Publication
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Application
EP 21753724 A 20210211

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Abstract (en)
[origin: US2021249777A1] Waveguide and/or antenna structures for use in RADAR sensor assemblies and the like. In some embodiments, the assembly may comprise a waveguide groove extending along an elongated axis. An antenna structure may be operably coupled with the waveguide groove and may comprise one or more slots extending within the waveguide groove along the elongated axis. The antenna structure may be positioned and configured to deliver electromagnetic radiation from the waveguide groove therethrough. The waveguide groove and/or the slot(s) of the antenna structure may intermittently oscillate on opposite sides of the elongated axis, in some embodiments in a periodic manner, along at least a portion of the elongated axis.

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H01Q 13/22 (2013.01 - EP US); **H01Q 21/0043** (2013.01 - EP); **G01S 13/931** (2013.01 - EP)

Citation (search report)
• [XAYI] US 3530479 A 19700922 - WALDRON RICHARD ARTHUR
• [XA] GB 1410116 A 19751015 - TRT TELECOM RADIO ELECTR
• [XAI] US 2681990 A 19540622 - PURCELL EDWARD M
• [XAI] US 2019363449 A1 20191128 - PENG JIE [CN], et al
• [YA] US 2018269591 A1 20180920 - KIRINO HIDEKI [JP], et al
• [A] US 2019187247 A1 20190620 - IZADIAN JAMAL [US], et al
• See also references of WO 2021163380A1

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US 11349220 B2 20220531; **US 2021249777 A1 20210812**; CN 115004475 A 20220902; CN 115004475 B 20230822; EP 4104246 A1 20221221;
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